

**Planetary Forecaster**  
**What is Temperature and How Does it Differ Across Earth's Surface?**  
**LS 1.4**  
**Compare Your Temperature Map to a Real-World Temperature Map**

Read the first paragraph on page 24. Read and follow the procedure on pages 24-26 to compare your temperature map to a real world temperature map.

**Reflect**

1. Identify a region on the Real Temperature Map where temperatures are in each of the temperature ranges listed below (one region for each temperature range). Use either the name of the region or its cursor location to identify the region.

-30°F to -11°F

32°F to 51°F

73°F to 94°F

2. List at least five places where your predictions are close to the real temperatures. Use either names or cursor locations to identify them. Your answer might be an area or a continent. For example: at the North Pole, in the oceans, North America, Australia, Northern Asia.

- 1.
- 2.
- 3.
- 4.
- 5.

3. List at least five places where your predictions are very different from the real temperatures. Use either names or cursor locations to identify them.

- 1.
- 2.
- 3.
- 4.
- 5.

4. Where were you surprised to see that your map and the actual temperature map were different?  
EXPLAIN

5. Why might it be better to look at a map of average temperatures over many years rather than a map of the temperatures in any single July?

6. In the real temperature map, you notice variation. What do you think is influencing these variations in

surface temperature?

**What's the Point** Read as a class

### **Update the Project Board**

You now have an accurate map showing the surface temperatures on Earth in July. You may have observed some patterns on this map. You may have seen where the hottest temperatures are found or where the coldest temperatures are found. At this point, you may have some ideas about what causes these temperature variations. You can add these ideas to your *Project Board*. You should also have a better idea about what you need more information about.

As a class, update the *Project Board*. Some information may need to be moved from *What do we think we know?* to *What do we need to investigate?*. New questions will be added, which you will soon investigate.